APPENDIX F

KEY TRANSPORTATION ENERGY RECOMMENDATIONS

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Bioenergy Action Plan for California (July 2006)

The Bioenergy Action Plan is designed to achieve a number of broad state policy objectives such as "maximize the contributions of bioenergy toward achieving the state's petroleum reduction, climate change, renewable energy, and environmental goals."

Biomass Production and Use Targets

In Executive Order S-06-06, Governor Schwarzenegger established the following targets to increase the production and use of bioenergy, including ethanol and biodiesel fuels made from renewable resources:

- Regarding biofuels, the state shall produce a minimum of 20 percent of its biofuels within California by 2010, 40 percent by 2020, and 75 percent by 2050.

Multi-Agency Collaborations

As directed by the Governor, the Energy Commission will coordinate with the Working Group on the use of state funds and on securing federal funding that support strategic research, development, and demonstration (RD&D) projects, including efforts to:

- Prove the commercial readiness of biofuels production and advanced biomass conversion technologies including cellulosic feed stocks derived from forestry, agriculture, and urban wastes by 2010.

California Energy Commission Responsibilities

- Report on progress in implementing the state policy objectives, biomass production and use targets, and actions detailed in this Plan in the biennial Integrated Energy Policy Report, as directed by the Governor.

- Complete a comprehensive "road map" to guide future research, development, and demonstration activities through the California Biomass Collaborative by September 30, 2006. Among other items, the Energy

Commission will work with the Hydrogen Highway team to ensure that this road map evaluates the potential for biofuels to provide a clean, renewable source of hydrogen.

- Prepare the State Alternative Fuels Plan by the June 30, 2007, Legislative deadline, with a progress report by December 31, 2006, that, among other things, will identify actions and incentives to increase the production and use of biofuels and to develop an extensive and convenient E-85 network in new and retrofitted service stations in California.

The California Air Resources Board Responsibilities

- Enable the most flexible possible use of biofuels through its Rulemaking to Update the Predictive Model and Specifications for Reformulated Gasoline, while preserving the full environmental benefits of California's Reformulated Gasoline Programs, as required by Health and Safety Code section 43013.1, by January 31, 2007.

- Complete the Rulemaking for presentation to the Board by January 31, 2007. As part of the rulemaking, reflect the emissions performance of current and future vehicle fleets and incorporate available data on the emissions impact of fuel properties.

- As data becomes available on the impacts of fuel specifications on the current and future vehicle fleets, review and update motor vehicle fuel specifications as appropriate. In reviewing the specifications, consider the emissions performance, fuel supply consequences, potential greenhouse gas reduction benefits, and cost issues surrounding ethanol blends, particularly E6, E10, and E85, for gasoline by January 31, 2007, and for diesel by December 31, 2008.

- Consider adoption of fuel specifications for motor vehicle fuels, such as B2, B5, B20, and B100 by December 31, 2007.

- Evaluate the greenhouse gas reductions benefits of bio-fuels and biomass production and use, and report back to the Working Group on recommended options to encourage their use, in close cooperation with the other members of the Working Group, by June 30, 2007.

- Evaluate the suitability of using available regulatory levers to encourage the establishment of E-85 stations in California by June 30, 2007.

- Complete a peer-reviewed study of the emissions performance, costs, and benefits of using biofuels and biofuel blends, using a multi-media approach by July 31, 2008.

- Consider adoption of regulations by June 30, 2008, that require all gasoline powered vehicles sold in the state to meet the state's emission standards using gasoline blended with up to 10 percent ethanol and consider a requirement increasing the percentage of E85-compatible vehicles sold in the state.

- Consider adoption of regulations by June 30, 2008, requiring heavy-duty diesel engine manufacturers to warrantee heavy-duty diesel engines using California diesel and B2, B5, and B20 meeting the California specifications indicated above.

The State Department of General Services Responsibilities

Develop an annual statewide vehicle asset plan by December 31, 2006, that, through the Statewide Equipment Council that:

a. Includes flexible fuel vehicles in the state's vehicle procurement program.

b. Requires state vehicle contracts to be based on a Life Cycle Cost Analysis methodology.

c. Requires state agencies (for light-duty, non-public safety applications, and other applications as practical) to purchase flexible fuel vehicles capable of operating on renewable and alternative fuels, increasing to 50 percent of total new vehicles purchased by 2010.

Legislative Options for Possible Action

The Working Group identified two topics for possible action during the 2006 legislative session:

- Amend existing law to revise existing technology definitions and establish new ones to enable use of biomass residues through both combustion and non-combustion technologies.

- Amend existing law to provide incentives to local jurisdictions for energy production activities.

In addition, the Working Group identified potential topics for future legislation, but for which additional evaluation is needed before determining the suitability of a legislative remedy.

- Establish a California renewable fuels standard based on fuel content that could include a minimum average of 10 percent renewable content in gasoline and a 5 percent non-petroleum diesel fuel standard.

- Recommend a package of tax incentives to encourage use of biomass, biofuels, and other bio-based products.

2005 Integrated Energy Policy Report (November 2005)

As directed by the Governor, the Energy Commission has assumed the lead in developing a long-term transportation plan that will reduce gasoline and diesel use and increase alternative fuel use. This effort is a prelude to the alternative fuel plan for the state required by AB 1007 (Pavley), Chapter 371, and Statutes of 2005, due by June 30, 2007. The Energy Commission envisions that the alternative transportation fuel plan must bridge the gap between today's technologies and the transition to hydrogen fuels and vehicles called for in the Governor's Hydrogen Highway Network Blueprint Plan. California must pursue a diverse portfolio of fuels and advanced transportation technologies that address both current supply and demand problems and build a sustainable foundation for the future.

The Energy Commission adopted the following transportation recommendations to the Governor:

- The state should simultaneously reduce petroleum fuel use, increase fuel diversity and security, and reduce emissions of air pollution and greenhouse gases.

- The state should implement a public goods charge to establish a secure, long-term source of funding for a comprehensive transportation program including broad-based funding for infrastructure, technology and fuels research, analytical support, and incentive programs.

- The state should continue to work closely with other states to pressure the federal government to double vehicle fuel efficiency standards and enact fleet procurement requirements that include super-efficient gasoline and diesel vehicles.

- The state should establish a non-petroleum diesel fuel standard so that all diesel fuel sold in California contains a minimum of 5 percent non-petroleum content that would include biodiesel, ethanol, and/or gas-to-liquid components.

- The state should establish a state renewable gasoline fuel standard so that the pool of all gasoline sold in California contains, on average, a minimum of 10 percent renewable content.

- The state should investigate how investor-owned utilities can help develop the equipment and infrastructure to fuel electric and natural gas vehicles.

- The state should, for its fleet of vehicles, establish a minimum fuel economy standard and a procurement requirement for alternative fuels and vehicles, and examine the merits of using re-refined and synthetic oils.